TOTE VISION

15.6" LED Monitor

LED-1562HD / LED-1562HDX

User Manual

3257 -17 th Avenue West, Building 1, Suite 201, Seattle WA 98119
Tel : (206) 623 6000 www.totevision.com email : info@totevision.com

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Introduction and Package Contents

Introduction

Congratulations o n y our p urchase. Y ou c an exp ect o nly the sharpest a nd m ost b rilliant c olor im ages f rom t his m onitor. Featuring easy to use OSD controls and built in speakers, you will find this monitor both easy to use and a pleasure to view.

Package Contents

- 12V DC Adapter
- Power cord
- D-Sub 15-pin VGA connector Cable
- User Manual
- RS-232 cable

Hardware Installation

The f ollowing s ections in t his g uide g ive clear, step-by-step descriptions of the ins tallation p rocess a nd exp lain ho w t o u se the monitor for optimum results.

Please pay attention to the Regulations and Warnings Section of this u ser's m anual b efore s etting up t he display m onitor. F ailure to do so may inadvertently result in p ersonal injuries or machine damage.

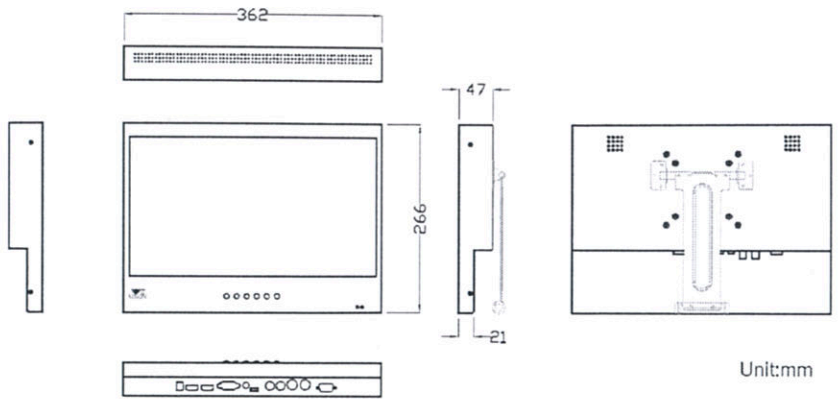
Note: The micro USB hub is only used for firmware update .

Specifications

Diagonal size	LED-1562HD/ LED-1562HDX
Panel type	TFT LCD, LED backlight
Aspect ratio	16:9
Number of pixels	1920 x 3 (RGB) 1080
Pixel pitch	0.215 x 0.215 mm
Color depth	262K Colors (RGB 6 bit)
Brightness	220 cd/m2
Response time	8 ms
Viewing angle	Vertical -60°~60° / Horizontal -70°~70°
Input Interface	VGA x 1, HDMI x 2, PC Audio x 1, Micro USB x 1,BNC x 1,RCA x 2, RS-232 x 1
Output Interface	BNC x 1
Display mode	VGA / HDMI 1/ HDMI 2 / AV
OSD	PICTURE, SOUND,OPTION
OSD Languages	English,Japanese,Spanish,German,Italian,French,Russian,Dutch,Czech
Speaker	1.5 W x 2
System	PAL / NTSC
Video processing	Motion Adaptive 3D De-Interlace and DNR, 4H Comb filter Y/C separation
AC power	AC 100-240V 50/60HZ
Power consumption	18W Max. in "ON" Mode Under 0.5W in Power Saving Mode (100 VAC) Under 0.5W in Power Saving Mode (240 VAC)
Power supply	External power adapter
Case material	Metal
Dimensions (W x H x D)	361.9 x 265.9 x 47 mm
Mounting interface	VESA mount 75 x 75 mm, 100 x 100 mm
Net weight	2.2 Kgs(4.85 lbs)
Temperature	Operation: 0°~40°C(32° ~104°F) Storage: -10°~60°C(14° ~140°F)
Humidity	20%-90%
Safety	FCC, CE, ROHS
Rack mount	RM-1562
Flush mount	LM-1562

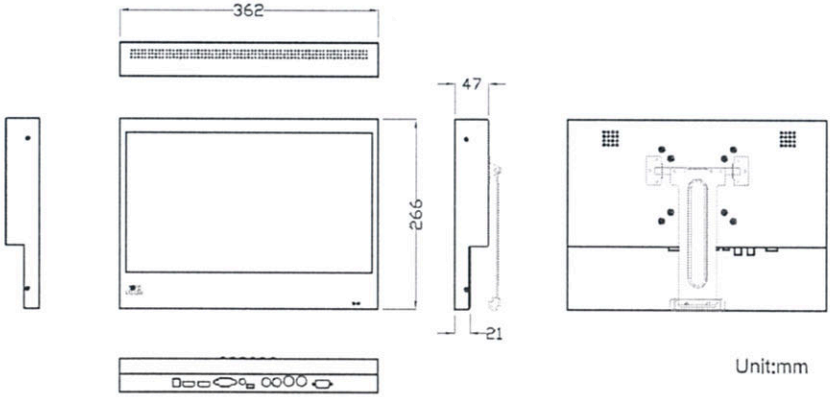
Dimension:

LED-1562HD



Unit:mm

LED-1562HDX



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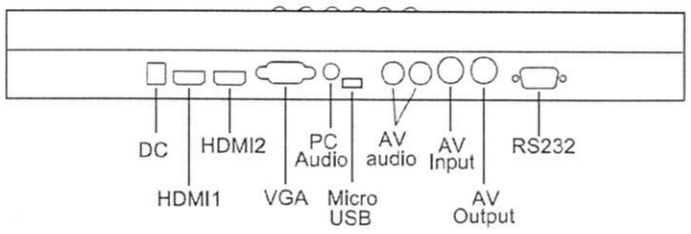
I/O:



VGA Timing

Item	Resolution	H Freq.(kHz)	V Freq.(Hz)	Note
1	640x400@70	31.460	70.080	
2	640x480@60	31.469	59.940	
3	640x480@72	37.861	72.809	
4	640x480@75	37.500	75.000	
5	720x400@70	31.460	70.080	
6	800x600@56	35.156	56.250	
7	800x600@60	37.879	60.317	
8	800x600@72	48.077	72.188	
9	800x600@75	46.875	75.000	
10	1024x768@60	48.363	60.004	
11	1024x768@70	56.476	70.069	
12	1024x768@75	60.023	75.029	
13	1920x1080@60	67.500	60.000	

Note:
The timings with presetting are recommended.
Users have to adjust the timing manually, if it is not included in the presetting list

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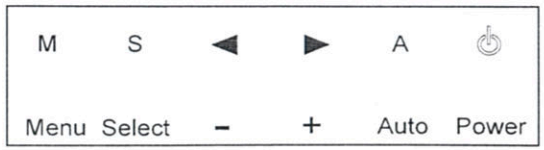
Monitor and OSD Control

Monitor and OSD Control

The LED color monitor has a simple control layout for controlling the monitor and OSD (On Screen Display) functions. The table below summarizes the control keys and their related functions.

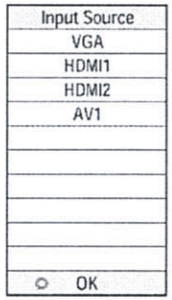
Key feature

Keys	Function Description
Power	To turn the power ON or OFF. Please wait for 6 seconds before the display appears.
A / Auto	Automatically adjusts H-Position, V-Position, Pixel Clock and Phase for an optimal image in PC mode only.
+ / ►	Switch setting item. Increase the value of the chosen item.
- / ◄	Switch setting item. Decrease the value of the chosen item.
S / Select	Switch mode "PC", "HDMI 1", "HDMI 2", "USB","AV".
M / Menu	Enter the main menu of the on-screen display (OSD).



Source Select

Press the **Select** button to bring up source selection



Use the **Select** keys to advance to the proper selection and press – OR + keys button to confirm the setting.

Note:

1. The message NO SIGNAL will be displayed on the screen if there's no VGA signal detected in VGA mode, and the power will be off automatically after 10 seconds. Please press the power button again to restart the monitor.
2. If the type is no multimedia function, there is no USB mode.

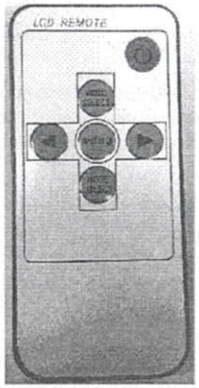
LED Status Display

The following table describes the various power states of the LED monitor as represented by different LED color.

Power State	LED Color
On	Green
Standby	Red

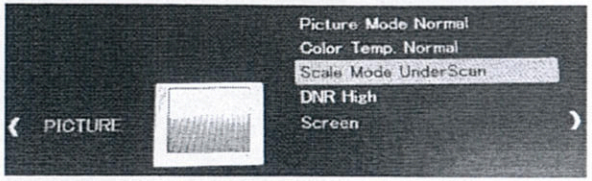
Illustration of the remote controller

	POWER SWITCH
	MENU
	VOLUME -
	VOLUME + / Switch setting item
	VIDEO – Switch to AV1/AV2/ HDMI/VGA
	MODE – Source menu



3 OSD Control Function List

PICTURE Mode

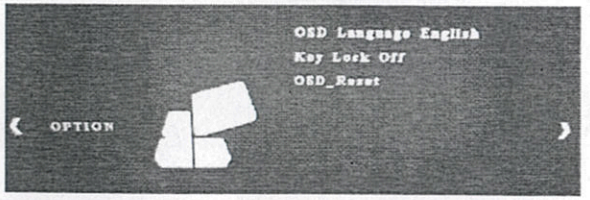


1.Picture Mode	Press - OR + to select the picture mode "User, Normal, Vivid, User, Movie"
2. Color Temp.	Press - OR + to adjust the color tones. " User, Cool , Warm , Normal "
3. Scale Mode	Press - OR + to adjust the Aspect Ratio. " 4:3, 16:9 , Under Scan"(For AV Mode, When you look at the image, it will be relatively narrow; and that is if the TV set over the part, will be displayed in a black background.)
4. DNR High	Press - OR + to adjust the Noise Reduction " Off , Low , Middle , High. "

SOUND Mode

1. Volume	Press - OR + to adjust volume level.
2.Mute	Press - OR + to adjust Mute. " Off , On".

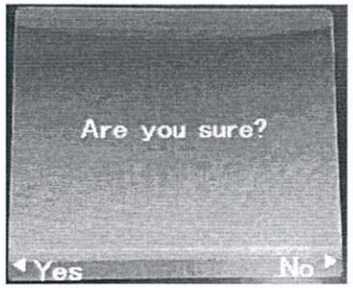
OPTION Mode



1. Language	Press - OR +(Left , Right),Select (Down) to select language.
2.Key Lock	Press - OR + to adjust Key Lock. " Off , On".(Key unlocking method, pressing the Select button for 5 to 10 seconds after seeing flashing lights completed.)
3.OSD_Reset	Press - OR + to adjust OSD_Reset. " Yes, No".

Reset Instructions

After selecting Reset OSD will appear if you want to reset the options, select the button "-" to YES, select the button "+" Back to the OSD.

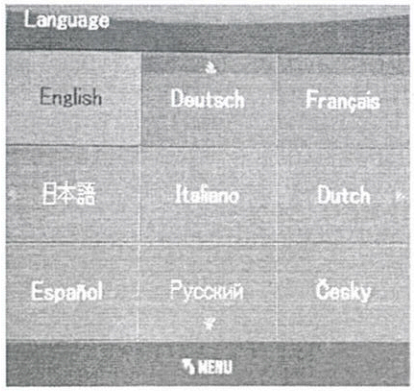


USB Mode operation

This micro USB is only for firmware update.

OSD Language Options

Press the - or + mobile option(Left , Right), Press the Select (Down) to select language.



4 RS-232 Operating Instructions

Com Port Setup:

Baud Rate : 38400
Data bit : 8
Parity : None
Stop Bits : 1

Protocol

1. Packet format

a. Send Packet

Header, Channel, Address High, Address Low, Data, Tail
Ex) In case of control the value of Brightness, transmit the serial data as below.

0xA5, 0x30, 0x00, 0x06, 0x01, 0xA0

Header: header ID (header ID : 0xA5)

Channel : 0x30 - control

Address High : control address for a Channel

Address Low : control address or message for a Channel

Data : control data or message

Tail : end of packet (0xA0)

2. Packet Examples

Packets	Command Packet	Remark
Send Control Packet	0xA5, 0x30, 0x00, 0x22, 0x01, 0xA0	Set Brightness increase value
	0xA5, 0x30, 0x00, 0x22, 0x00, 0xA0	Set Brightness increase Reduce
	0xA5, 0x30, 0x00, 0x49, 0x00, 0xA0	Change AV1 source

Input source	Item	Address High(Hex)	Address Low(Hex)	Min Value(Hex)	Max Value(Hex)
PC	Contrast	0x00	0x21	0->DECVALUE	1->INCVALUE
	Brightness	0x00	0x22	0->DECVALUE	1->INCVALUE
	Color Temp	0x00	0x23	0->Standard , 1->Warm , 2->Cool , 3->SRGB , 4->USER	
	Red	0x00	0x24	0	0xFF
	Green	0x00	0x25	0	0xFF
	Blue	0x00	0x26	0	0xFF
	H-Position	0x00	0x27	0->DECVALUE	1->INCVALUE
	V-Position	0x00	0x28	0->DECVALUE	1->INCVALUE
	H-Zoom	0x00	0x29	0->DECVALUE	1->INCVALUE
	V-Zoom	0x00	0x2a	0->DECVALUE	1->INCVALUE
	Phase	0x00	0x2b	0->DECVALUE	1->INCVALUE
	Clock	0x00	0x2c	0->DECVALUE	1->INCVALUE
	Scale Mode	0x00	0x2d	0->Full , 1->16:9	
	Auto	0x00	0x2e	Don't care	
Video	Mode	0x00	0x2f	0->Standard , 1->Movie , 2->Vivid , 3->User	
	Contrast	0x00	0x30	0->DECVALUE	1->INCVALUE
	Brightness	0x00	0x31	0->DECVALUE	1->INCVALUE
	SATURATION	0x00	0x32	0->DECVALUE	1->INCVALUE
	TINT	0x00	0x33	0->DECVALUE	1->INCVALUE
	Sharpness	0x00	0x34	0->DECVALUE	1->INCVALUE
	Color Temp	0x00	0x35	0->Normal , 1->warm , 2->Cool	
	DNR	0x00	0x36	0->Lew , 1->Mid , 2->High , 3->Off	
	H-Position	0x00	0x37	0->DECVALUE	1->INCVALUE
	V-Position	0x00	0x38	0->DECVALUE	1->INCVALUE
	H-Zoom	0x00	0x39	0->DECVALUE	1->INCVALUE
	V-Zoom	0x00	0x3a	0->DECVALUE	1->INCVALUE
	Scale Mode	0x00	0x3b	0->16:9 , 1->Full	

Input source	Item	Address High(Hex)	Address Low(Hex)	Min Value(Hex)	Max Value(Hex)
Common	Reset	0x00	0x3e	Don't care	
	Sound(Mute)	0x00	0x3d	0->Mute Off , 1->Mute On	
	Language0	0x00	0x3f	any value is ENGLISH	
	Language1	0x00	0x40	any value is GERMAN	
	Language2	0x00	0x41	any value is FRENCH	
	Language3	0x00	0x42	any value is SPANISH	
	Language4	0x00	0x43	any value is ITALIAN	
	Language5	0x00	0x44	any value is DUTCH	
	Language6	0x00	0x45	any value is POLISH	
	Language7	0x00	0x46	any value is RUSSIAN	
	Language8	0x00	0x47	any value is CZECH	
	Language9	0x00	0x48	any value is TURKISH	
	Signal source0	0x00	0x49	any value is AV1	
	Signal source1	0x00	0x4a	any value is AV2	
	Signal source2	0x00	0x4b	any value is VGA	
	Signal source3	0x00	0x4c	any value is HDMI	
	POWER	0x00	0x4d	0->Power Off , 1->Power On	
	Menu	0x00	0x50	Don't care	
	Select	0x00	0x51	Don't care	
	Left	0x00	0x52	Don't care	
	Right	0x00	0x53	Don't care	
	Up	0x00	0x54	Don't care	
	Down	0x00	0x55	Don't care	
	Volume	0x00	0x56	0->DECVALUE	1->INCVALUE

Caring for Your LED Monitor

Caring for your LED Monitor

The LED color monitor is a sensitive piece of electronic equipment. Proper care can prevent accidentally damaging the LED panel or the monitor itself. By following these guidelines you can ensure many years of trouble free use.

1. The LED monitor's metal and plastic casing and LED glass panel can be cleaned with a soft, lint-free cloth. ***Never use scrub pads or other cleaning materials with abrasive surfaces to clean your LED monitor!***
   a. A slightly damp cloth or newspaper may be used to clean the glass plate of fingerprints or smudges.
   b. For the metal case, a mild detergent may be used to clean the surface. However, you should ensure not to use too much detergent or water as this could leak into the interior of the casing.
2. Do NOT use cleaning fluids based on alcohol, methylated spirit, or ammonia. The glass plate has a hard surface coating to prevent scratches. However, the use of strong chemical cleaning agents may damage this coating. Use only a mild soap or detergent and water or specially formulated cleaners made for cleaning glass panels.
3. Avoid direct contact with water or other liquids. Never use the LED monitor in or around areas where water may pose a potential hazard to normal operation.
4. Only use the LED monitor indoors, and avoid monitor contact with oil, vapor, steam, moisture and dust. The LED monitor should be used in a clean and low humidity environment.
5. Keep the LED monitor away from heaters or other heat sources such as lighting equipment or direct sunlight.
6. Keep the LED monitor screen away from sharp objects such as fingernails and pencils.

WARNING: Any unauthorized modification to this equipment could result in the revocation of the authorization to operate the equipment and void the product warranty.

Frequently Asked Questions

Power button does not respond

- Check the power cord to ensure that it is securely plugged into the monitor base and also into the electrical outlet.
- Ensure there is electrical power coming from the AC outlet. Use another device to check for power.
- Unplug the power cord of the monitor from the AC outlet, wait a few minutes, then to plug the power cord into the AC outlet again. This will reset the monitor and power supply.

No image on the screen

- Ensure that the DB-15 signal cable is properly connected to the display card/computer.
- Check the DB-15 signal cable connector on both ends for bent or pushed-in pins.
- The display card should be properly seated in its card slot.
- Ensure that the computer's power switch is ON.
- Ensure that the monitor's power switch is ON.
- Unplug the power cord of the monitor from the AC outlet, wait a few minutes, then to plug the power cord into the AC outlet again. This will reset the monitor and power supply.

Power LED is RED (with no image on the screen)

- Check the DB-15 signal cable to ensure that it is properly attached to the graphics display card.
- Check the DB-15 signal cable on both ends for bent or pushed-in pins.
- Make sure the computer is not in a power-saving mode (move the mouse or press a key on the keyboard).

No sound coming from the audio speakers

- The audio cable should be connected to the lineout on the audio card and the line-in on the monitor. Ensure that the audio cable is properly connected.
- Inspect the audio cable for any apparent damage. Double check by switching to another audio cable to see if the audio works.

7 Regulations and Maintenance

FCC compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generation, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on an electrical circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Precautions

* Read all of these instructions and save them for later use.
* Follow all warnings and instructions on the product.
* Product
  - Do not cover or block the vent holes in the case.
  - Do not insert sharp objects or spill liquid into the LED monitor through cabinet slots. They may cause accidental fire, electric shock or failure.
  - Disconnect the power plug from the AC outlet if you will not use it for an indefinite period of time.
  - Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage potentials or other risks.
  - Do not touch the screen directly with your fingers. You may damage the screen, and oil from your skin is difficult to move.
  - Do not apply pressure to the screen. The LED is very delicate.

* Power
  - Use the type of power indicated on the marking label.

* Plugs
  - Do not remove any of the prongs of the monitor's three-pronged power plug.
  - Disconnect the power plug from the AC outlet under following conditions:
    - ◎ If you will not use it for an indefinite period time.
    - ◎ When the power cord or plug is damaged or frayed.
    - ◎ If the product does not operate normally when the operation instructions are followed. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    - ◎ If the product has been dropped or the cabinet has been damaged.
    - ◎ If the product exhibits a distinct change in performance, indicating a need for service.
* Power and extension cords
  - Do not allow anything to rest on the power cord.
  - Do not locate this product where persons will walk on the cord.
  - Use the proper power cord with correct attachment plug type. If the power source is 120 V AC, use a power cord that has UL and C-UL approvals. If the power source is a 240 V AC supply, use the tandem (T blade) type attachment plug with ground conductor power cord that meets the respective European country's safety regulations, such as VDE for Germany.
  - Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 10 amperes.
  - Ensure that the total ampere rating of all units plugged into the extension cord is not over the cord's rating.
  - If the power supply cord, which came with your monitor, is to be connected to the PC instead of the wall outlet, this equipment is to be used with UL/TUV approved computers with receptacle rated 100~240V AC, 50/60Hz, 2.0A(minimum).
* Environment
  - Place the monitor on a flat and level surface.
  - Place the monitor in a well-ventilated place.
  - Keep the monitor away from:
    Extremely hot, cold or humid places, places directly under sunlight, dusty surroundings, equipment that generate strong magnetic fields.

THREE YEAR LIMITED WARRANTY

Important: Retain original packing material for use in (1) shipping the equipment to our facility for service and (2) for use in shipping the equipment to electronics recycle location at the end of the equipment's useful life.

ToteVision warrants to the original purchaser that this product is free from defects in workmanship and materials under normal use and conditions for a period of three years from the date of original shipment (*ToteVision* invoice date), subject to the limitations below. LCD monitors are warranted for a period of three years, with the exception of the LCD panels integrated into the monitors that are supplied by third parties. LCD panels are limited to the terms and conditions of the warranty offered by the respective LCD panel manufacturer. Such specific LCD panel warranties are available upon request to *ToteVision*. Should service be required by reason of any defect or malfunction during the warranty period, *ToteVision* will repair or at its discretion replace this product, without charge (subject to verification of the defect or malfunction), upon delivery of this product to *ToteVision* with proof of date of purchase. During the warranty period *ToteVision* will repair or replace, free of charge, defective units which are not defective due to ordinary wear and tear, user abuse, or other causes not arising out of manufacturer's defects in materials or workmanship. *ToteVision* warrants replacement products or parts provided under this warranty against defects in workmanship and materials from the date of replacement or repair for ninety (90) days or for the remaining portion of the original product's warranty, whichever is greater. All defective products must be returned to *ToteVision* within thirty (30) days of failure.

Before returning this product for service:

1. If it is necessary to pack the unit in other than original carton and protectors, insure proper packaging for good protection.
2. Enclose a photocopy of your dated sales receipt, credit card statement, or other proof of the date of purchase, a description of your complaint, your name, company name, address, email address and daytime telephone number. Do not use P.O. Box numbers since UPS cannot deliver to P.O. Boxes. Your warranty registration information must be on file in our office as a method of identification. If proof of original ownership is not in our records, the repair will be treated as "out-of-warranty" and you will be required to pay for repair and handling charges prior to the unit being returned to you.
3. Obtain a Return Merchandise Authorization from ToteVision, ship the unit and all accessories (power supply, cables, manual, etc.) prepaid and insured to *ToteVision*. For service after the warranty period has expired, you will be advised of estimated repair charges.

NOTE: This warranty is valid only if the product is used for the purpose for which it was designed. It does not cover:

(i) units which have been damaged by negligence, misuse, vandalism, terrorism, accidents, abuse, lightening, electrical power fluctuations (surges or spikes) or failure, inverted polarity or wrong voltage, acts of God, improper installation or application, or units which have been modified or repaired by unauthorized persons,
(ii) cracked or broken units (including scratched or broken glass panels) or units damaged by excessive heat or cold, or units exposed to excessive UV light, or units exposed to excessive dust and/or humidity,
(iii) damage to LCD panels caused by static (non-moving) images displayed for lengthy periods of time (also referred to as "burn in"),
(iv) units which have their serial numbers removed, altered or rendered illegible,
(v) units whose case has been opened by unauthorized personnel,
(vi) installation or removal of units,
(vii) freight damage,
(viii) the cost of shipping this product to *ToteVision*.

No warranty, expressed or implied, as to merchantability or fitness for a particular use is made beyond this Limited Warranty. *ToteVision* will not be liable for incidental or consequential damages or lost profits arising from product defects or malfunctions. This warranty is valid only in the United States of America and does not extend to owners of the product subsequent to the original purchaser. Any applicable implied warranties are also limited to 3 years and *ToteVision* will not be liable for consequential damages. (Some states do not allow limitations on implied warranties or exclusions of consequential damages, so that these restrictions may not apply to you.) This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

As a precondition to receiving any of the benefits of this limited warranty, your completed warranty registration information must be on file in our office. IF YOUR INFORMATION IS NOT ON FILE WITH US, ALL WARRANTY CLAIMS WILL BE DENIED. TO PROTECT YOUR WARRANTY, MAIL YOUR REGISTRATION INFORMATION TODAY. Submission of a unit determined not defective will result in a charge to you of $65.00 for testing and handling the unit. Thoroughly test your unit before submitting it for warranty claim repair.

Send unit to: *ToteVision*, 3257 – 17th Ave West, Bldg 1, Suite # 201, Seattle , WA 98119
For further information: call (206) 623-6000 or fax (206) 623-6609

WARRANTY REGISTRATION

Protect your Warranty by completing and mailing this form to:
ToteVision, 3257-17th Ave West, Bldg 1, Suite #201, Seattle , WA 98119

Model Number: _____Serial Number:_____
Name: _____
Address:_____
City: _____ State: _____Zip: _____
Telephone number: (_____) _____ Email address:_____
Dealer: _____Dealer City: _____ State: _____

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